

IMPROVED METHOD OF STAKING AND IMPROVEMENT IN CURING HOPS.

At the last meeting of the Farmers' Club Mr. F. W. Collins, of Morris, Otsego County, New York, gave a very interesting description of the present mode of raising and curing hops, with an account of some important improvements which have recently been made in both processes. We present a summary of his remarks.

PLANTING AND CULTIVATING.

More hops are raised in Otsego county than in any other county in this state or country. The vines are planted in rows eight feet apart both ways. They are propagated by layers; a long vine is laid down, and in the course of the season it throws out roots from each joint, these are cut and planted in the hills. The first season the ground is also planted with corn or potatoes, no crop of hops being expected, though sometimes 200 lbs. are gathered from an acre. The second season each hill is staked with two poles, 20 or 25 feet high, no other crops are planted between the hops, and the ground is kept light and free from weeds by means of a horse cultivator. The second season about two thirds of a crop is obtained, and the third season a full crop.

PICKING.

The principal labor in raising hops is the picking, and this is usually done by women and children. The harvest season commences about the last week in August. The vines are cut off at the surface of the ground; a strong man, by means of a properly prepared lever, heaves the pole from its hole in the earth, and carries it to a large box that will hold several bushels. Here the girls pick the hops from the vines, and put them into the box. The price paid for picking is from four to five cents per bushel, and a bushel will yield about two lbs. of dried hops. A smart girl will pick 30 bushels a day.

KILN DRYING.

The hops are taken from the field directly to the kilns where they are dried. The kilns are simply wooden buildings. A floor is prepared by laying slats about two inches wide, with spaces between them of the same width and covering them with a carpet of strong cloth, loosely woven so that the air may pass freely through it. The hops are piled on this cloth to the depth of from 12 to 20 inches, and they dry in the course of ten hours. It is found best to have the floor 10 feet or more above the stove and heating pipes below. As the hops immediately over the slats are protected from the drying action of the heat, it is necessary to stir them with a rake when they are partially dried. When the drying is completed the hops are pushed from off the end of the carpet, and drop a few feet upon the cooling floor; when they are put into bags, and they are then ready for market.

IMPROVED MODE OF STAKING.

Within a few years a new plan of staking has been adopted, and it is working a revolution in the cultivation. In place of having poles 20 or 25 feet high, we set them only eight feet, and connect their tops in both directions by strings of strong twine, along which the vines are trained. The most important effect of this plan is avoiding the necessity of cutting off the vine at the time of picking. When vines are cut so early they bleed profusely, and this bleeding seriously injures and sometimes destroys the root. With the low stakes the strings are loosened at the top, when the vines slide down within the reach of the pickers. The top of the vine dies in the course of the winter, but the root escapes the great damage from bleeding. This increases the crop the next season. By the long pole system a crop was obtained ranging from 700 to 1200 lbs. per acre, but by the new system it is not uncommon to get 1500, and even 2000 lbs. to the acre.

IMPROVED PLAN FOR DRYING.

The value of hops depends upon the proportion of lupulin which they contain. The more they are stirred in the process of drying, the more of this fine dust is shaken out and lost. We now prepare a drying floor by stretching a series of No. 10 wires across the room, and spreading the carpet smoothly upon them. The wires do not intercept the heat, and the hops require no stirring. The carpet is secured to a roller at the delivering end, and when the drying is completed, the roller is slowly turned so as to

wind up the carpet upon it, thus drawing the hops quietly along without shaking them in the least. By this plan we get hops of very superior quality.

SIX ACRES OF HOPS DESTROYED BY LIGHTNING.

Solor Robinson inquired if a plan was not patented for substituting wire for poles in training hops. Mr. Collins replied, "Yes, the plan of Mr. Aylesworth. He set large beams, like telegraph posts at the sides of the field and stretched wires across. Pieces of twine were then led down from the wires vertically to the hills. The plan was introduced in a number of fields. It had some advantages and some disadvantages. One difficulty was the liability of electricity to run along the wires. I knew of one field of six acres which was struck by a flash of lightning, and it went over the whole field, completely killing the tops of all the vines."

RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be found in the official list:—

Improved Pocket-book.—This invention consists in the application of one or more strips of spring steel to the closing flap of a pocket-book, said strip or strips being secured in the edge or edges of the flap, in such a manner that by its action the pocket-book is kept closed without the aid of the usual clasps, strings, or other fastening, and if a portion of the pocket-book is unfolded or opened, the remaining pockets are still closed by the action of the spring flap, and their contents prevented from dropping out accidentally, and an article is produced of great convenience. It is capable of holding bills or papers of value of any description, and the danger of losing a portion of its contents is considerably lessened. J. Fred. Dubber, of the firm of Dubber & Martin, No. 160 William street, New York, is the inventor.

Adjustable Stake Holder for Railroad Cars.—This invention relates to a new and improved holder for scouring stakes to the sides of flat and sideless railroad freight cars. The object of the invention is to obtain a holder for the purpose specified which will admit of the stakes being adjusted or turned down in a horizontal position when required, so as to obviate the necessity of detaching or removing the stakes from the car at any time when an upright position of them is not required, as in loading and unloading a car, etc. By this means the stakes, not requiring to be detached from the car at any time, are not liable to be lost or mislaid, are always ready for use when required, and in case of breakage new ones may be readily applied. A. R. Burdick, of Racine, Wis., is the inventor.

Harness or Gig-saddle Tree.—This invention relates to an improvement in that class of harness or gig-saddle trees which are of iron and provided with wire jockeys. The object of the invention is to do away with nuts and all projections whatever, at the under side of the tree, which would have a tendency to injure or "gall," as it is technically termed, the horse's back, and at the same time have the bearings of the tree so formed or constructed that they will serve the double function of bearings and clamps and afford ample room for the back band and flaps, and admit of the saddle having a chaste and neat appearance. Samuel E. Tompkins, Newark, N. J., is the inventor.

Composition for Lining and Coating Articles of Wood, Stone, &c.—This invention relates to a composition, the principal object of which is to render petroleum barrels or packages perfectly tight, and prevent the loss by leakage, but which can also be used for lining or coating other vessels or articles. This composition is made of glue and other articles mixed therewith in such a manner that the same readily adheres to the wood and is not liable to scale or crack when the barrels are roughly handled, or exposed to the heat of the sun, or when the hoops are driven. It has been applied with perfect success to petroleum barrels so that they can be shipped to any part of the globe without the loss of a particle of their contents. The materials from which this composition is made are cheap, and can therefore be furnished at a small expense. Henry Preuss, 61 Cedar St., N. Y., is the inventor.

Apparatus for packing Tubes and Joints.—This invention consists, in general terms, in a novel

method of packing the tubes of oil and other wells, or any other surfaces fixed or movable, by the use of a packing box whose body is made of flexible or elastic material which is made to act as a packing by means of the expansion of its walls. Samuel L. Fox, 924 Chestnut Street Phil., Penn., is the inventor.

Wire Fence.—This invention relates to a wire fence in which each section is constructed of one or two continuous pieces of wire extending over four sets of pulleys, two of which sets have their bearings on the end posts of the section and the other two sets on adjustable posts in the middle, in such a manner that by moving said adjustable posts towards or from each other the tension of the wire is decreased or increased and such tension will thus be readily accommodated to the existing temperature; and furthermore, by using a continuous strand of wire the liability of the wire to break is materially reduced. The several strands of wires are supported and held parallel by brackets with oblique slots, cast or otherwise rigidly attached to posts which may be loose or fastened down to the ground; before the wires are strained, they can be easily introduced into the bracket, and by moving the movable posts an opportunity is obtained to force the wire apart when a person desires to pass through between them. The bearings of the pulleys are also cast solid with the posts so that the fence can be made cheap and durable. J. W. Norcross of Middletown, Conn., is the inventor.

New Mordant.

A new mordant, for aniline and other dyes, is said to have been discovered. It consists of acetate of aluminum and arsenite of soda, and the discoverer, M. Shultz, believes that it is destined to replace albumen, gluten, tannin, and other matters employed for the same purpose. He mixes, at the ordinary temperature, four grammes of the aniline violet of commerce, in powder, with a quarter of liter of acetate of alumina, and twenty grammes of arsenite of soda, thickening it with starch boiled in water—the quantity of starch to be diminished in proportion to the darkness of the color to be fixed. In the case of prints, it is recommended to mix the arsenite of soda and the acetate of alumina with the coloring matter, and to steam the fabric or yarns over the mixture. For dyeing it is said to be better to treat the tissue, or yarns, in the first place, with a mixture of the two salts, and afterwards to dip them in the color vat in the ordinary way. Salts or compounds of tin, combined with alumina, may be used instead of arsenical acid.

Fast Firing.

At Shoeburyness, the Armstrong and Whitworth Committee fired 100 rounds rapid fire from the Armstrong 12-pounder breech-loader field gun. There was an interval of 10 minutes after the first 50 rounds. The time, as taken by the committee, was—for the first 50, 6 min. 58 sec., and for the second 50, 6 min. 35 sec.; 13 min. 33 sec., in all. Thus the gun was fired throughout the 100 rounds at the rate of $7\frac{1}{2}$ rounds a minute; and for the second 50 rounds at the rate of 8 rounds a minute. It was supposed on the ground that four shots were often in the air at the same time. This is by far the most rapid artillery fire on record, and it is more than twice as rapid than ever has been accomplished by any muzzle-loading gun. No water was used, nor any sponging, nor did any hitch of any sort occur. At the 52nd round the lanyard that pulls the friction tubes broke; this caused a delay of 20 seconds.—*London Artizan.*

Edward Everett.

The Hon. Edward Everett, died of apoplexy at his residence in Boston, on the 15th inst. His age was about 71 years. A profound and universal feeling of sadness at the announcement of his demise pervaded all classes of our citizens. The nation loses in Edward Everett not merely a talented citizen, but one distinguished for patriotism, private virtues and liberal views on all that affects the welfare of man. Mr. Everett has been successively a preacher of the gospel, professor of a college, a member of Congress, a Governor of Massachusetts, Minister to England, President of Harvard University, Secretary of State and Senator from Massachusetts; each and all of these several positions he filled with credit to himself and constituents. It is expected that high national honors will be paid to his memory.